



SEQUENCE LISTING

<110> Sette, Alessandro
Gaeta, Federico
Grey, Howard M.
Sidney, John
Alexander, Jeffery L.
Epimmune Inc.

<120> Induction of Immune Response Against
Desired Determinants

<130> 018623-006250US

<140> US 09/707,738

<141> 2000-11-06

<150> US 08/121,101

<151> 1993-09-14

<150> US 08/305,871

<151> 1994-09-14

<150> US 08/485,218

<151> 1995-06-07

<150> US 60/010,510

<151> 1996-01-24

<150> US 08/788,822

<151> 1997-01-23

<150> US 09/310,462

<151> 1999-05-12

<160> 27

<170> FastSEQ for Windows Version 3.0

<210> 1

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<220>

<223> HA 307-319

<400> 1

Pro Lys Tyr Val Lys Gln Asn Thr Leu Lys Leu Ala Thr
1 5 10

<210> 2

<211> 24

<212> PRT

<213> Artificial Sequence

<220>

<223> MBP 78-101

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<400> 2
 Gly Arg Thr Gln Asp Glu Asn Pro Val Trp His Phe Phe Lys Asn Ile
 1 5 10 15
 Val Thr Pro Arg Thr Pro Pro Pro
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<400> 3
 Tyr Lys Thr Ile Ala Phe Asp Glu Glu Ala Arg Arg
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<210> 4
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 <223> 717.01 combinatorial

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 Tyr Ala Arg Phe Gln Ser Gln Thr Thr Leu Lys Gln Lys Thr
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 <223> Tet Tox 830-843, T-helper epitope from tetanus
 toxin p2, peptide 553.01

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 Gln Tyr Ile Lys Ala Asn Ser Lys Phe Ile Gly Ile Thr Glu
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<400> 7
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 1 5 10 15
 Ala

<210> 8
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<220>
 <223> Ova 323-326

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 <223> lambda rep 12-26

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<220>
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<400> 10
 Tyr Asn Thr Asp Gly Ser Thr Asp Tyr Gly Ile Leu Gln Ile Asn Ser
 1 5 10 15
 Arg

<210> 11
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<220>
 <223> all-natural analog of pan DR binding peptide
 965.10 with substitutions L-Ala for D-Ala, Phe at
 position X2 and Trp at position X6

<400> 11
 Ala Lys Phe Val Ala Ala Trp Thr Leu Lys Ala Ala Ala
 1 5 10

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 965.10 with substitutions L-Ala for D-Ala, Phe at
 position X2 and Asn at position X6

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 Ala Lys Phe Val Ala Ala Asn Thr Leu Lys Ala Ala Ala
 1 5 10

 <210> 13
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 965.10 with substitutions L-Ala for D-Ala, Phe at
 position X2 and Tyr at position X6

 <400> 13
 Ala Lys Phe Val Ala Ala Tyr Thr Leu Lys Ala Ala Ala
 1 5 10

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 965.10 with substitutions L-Ala for D-Ala, Phe at
 position X2 and Lys at position X6

 <400> 14
 Ala Lys Phe Val Ala Ala Lys Thr Leu Lys Ala Ala Ala
 1 5 10

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 965.10 with substitutions L-Ala for D-Ala, Phe at
 position X2 and His at position X6

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 965.10 with substitutions L-Ala for D-Ala, Phe at
 position X2 and Ala at position X6

<400> 16
 Ala Lys Phe Val Ala Ala Ala Thr Leu Lys Ala Ala Ala
 1 5 10

<210> 17
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<220>
 <223> central immunodominant circumsporozoite repeat
 region of circumsporozoite protein (CSP) of
 Plasmodium yoelii (PyB)

<400> 17
 Gly Gln Gly Pro Gly Ala Pro Gln Gly Pro Gly Ala Pro Gln Gly Pro
 1 5 10 15
 Gly Ala Pro Gln Gly Pro Gly Ala Pro
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<210> 18
 <211> 16
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> central immunodominant circumsporozoite repeat
 region of circumsporozoite protein (CSP) of
 Plasmodium falciparum (PfB)

<400> 18
 Asn Ala Asn Pro Asn Ala Asn Pro Asn Ala Asn Pro Asn Ala Asn Pro
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<210> 19
 <211> 6
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 <223> protective B-cell epitope tandem repeat from the
 PyB CSP

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 <212> PRT
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<220>
 <223> universal T-helper epitope from tetanus toxin p30

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1 5 10 15
Ala Ser His Leu Glu
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<210> 21
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<212> PRT
<213> Artificial Sequence

<220>
<223> PyCS.1 Plasmodium falciparum B-epitope

<400> 21
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<210> 22
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<220>
<223> peptide 965.17

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<222> (3)...(3)
<223> Xaa = cyclohexylalanine

<221> MOD_RES
<222> (13)...(13)
<223> Xaa = alaninamide

<400> 22
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1 5 10

<210> 23
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<220>
<223> peptide binds more than one DR allele

<221> MOD_RES
<222> (1)...(1)
<223> Xaa = any D- or L-amino acid

<221> MOD_RES
<222> (2)...(2)
<223> Xaa = Ala or Lys

<221> MOD_RES
<222> (3)...(3)
<223> Xaa = cyclohexylalanine, Tyr or Phe

<221> MOD_RES
<222> (4)...(6)
<223> Xaa = Ala, Ile, Ser or Val

<221> MOD_RES
<222> (11)...(12)
<223> Xaa = Ala, Ser or Val

<221> MOD_RES
<222> (13)...(13)
<223> Xaa = any D- or L-amino acid

<400> 23
Xaa Xaa Xaa Xaa Xaa Xaa Trp Thr Leu Lys Xaa Xaa Xaa
1 5 10

<210> 24
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> peptide binds more than one DR allele

<221> MOD_RES
<222> (1)...(1)
<223> Xaa = any D- or L-amino acid

<221> MOD_RES
<222> (2)...(2)
<223> Xaa = Ala or Lys

<221> MOD_RES
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<223> Xaa = cyclohexylalanine, Tyr or Phe

<221> MOD_RES
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<223> Xaa = Ala, Ile, Ser or Val

<221> MOD_RES
<222> (11)...(13)
<223> Xaa = Ala, Ser or Val

<221> MOD_RES
<222> (14)...(14)
<223> Xaa = any D- or L-amino acid

<400> 24
Xaa Xaa Xaa Xaa Xaa Xaa Trp Thr Leu Lys Xaa Xaa Xaa Xaa
1 5 10

<210> 25
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<220>
<223> peptide binds more than one DR allele

<221> MOD_RES
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 <223> Xaa = Ala, Ser or Val

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<210> 26
 <211> 13
 <212> PRT
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<220>
 <223> peptide binds more than one DR allele

<221> MOD_RES
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<221> MOD_RES
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 <223> Xaa = Ala or Lys

<221> MOD_RES
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 <223> Xaa = cyclohexylalanine, Tyr or Phe

<221> MOD_RES
 <222> (4)...(6)
 <223> Xaa = Ala, Ile, Ser or Val

<221> MOD_RES
 <222> (7)...(7)
 <223> Xaa = Ala, Ile, Ser or Val, Xaa at position 7 may
 be present or absent

<221> MOD_RES
 <222> (12)...(13)
 <223> Xaa = Ala, Ser or Val

<221> MOD_RES
 <222> (14)...(15)
 <223> Xaa = Ala, Ser or Val, Xaa at positions 14 and 15
 may be present or absent

<221> MOD_RES
 <222> (16)...(16)
 <223> Xaa = any D- or L-amino acid

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 1 5 10 15

<210> 27
 <211> 4
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> pan DR binding peptide binding core

<400> 27
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 1